

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **amended Claim 1** relates to a method of reclaiming crosslinked rubber, comprising:

introducing a degasification carrier and **removing, together with the degasification carrier, decomposed products in crosslinked rubber by applying shear stress thereto**, during 1) a reclamation step of reclaiming crosslinked rubber and/or 2) a subsequent step after the reclamation step.

In contrast, Mouri (U.S. 6,133,413) fails to disclose or suggest removal of decomposed products **together with a degasification carrier** from the cross-linked rubber or the application of **shear stress** as claimed. Mouri simply does not add a degasification carrier. Thus, the present invention cannot be anticipated. In addition, the removal of decomposed products without a degasification carrier is inadequate as shown in Table 4 at page 27 of the specification. If no degasification is used, the total area of detected peaks is 118.6 while water injection and degasification gives less than half the area of detected peaks: 54.7. Thus, the present invention is not obvious over Mouri.

Further, in the present invention, the decomposed product is removed by

- ① introducing a degasification carrier
- ② solution and/or absorption of decomposed products to the degasification carrier
- ③ removal of the degasification carrier with decomposed products.

If an extruder is used as in Mouri, step similar to ③ (removal of decomposed products) is conducted by using a reduced pressure vent. However, if it the decomposed products are only removed using a vent, the removal is inadequate and substantial offensive

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odor arises from the reclaimed rubber. A certain amount of decomposed products do not break away from the rubber easily, because their affinity to the rubber or because of low volatility. In addition, the data in Table 2 at page 23 of the specification show that degasification under reduced pressure alone, is substantially inferior to removal using a degasification carrier as the “bad smell” is only “lowered a little.”

Therefore, the rejection of Claims 1, 3-5, and 7 under 35 U.S.C. § 102(e) as anticipated by Mouri (U.S. 6,133,413) in view of evidence given in Matsushita (U.S. 6,632,918) is believed to be unsustainable and should be withdrawn.

The rejection of Claims 1, 3 and 4 under 35 U.S.C. § 102(b) over Murayama (JP 06-210633) is respectfully traversed.

In contrast, Murayama (JP 06-210633) fails to disclose or suggest removal of decomposed products **together with a degasification carrier** from the cross-linked rubber or the application of **shear stress** as claimed.

Murayama (JP 06-210633) uses heat and as a result, a “stinkdamp” occurs when the desulfurization process is carried out with the deodorizing equipment 16 (Machine translation, page 1, [0003]). However, the deodorization equipment 16 in JP 06-210633 does not use a degasification carrier or shear stress to remove the decomposed products. In addition, the data in the specification show that decomposed products cannot be sufficiently removed without the use of a degasification carrier. See, for example, Table 4 at page 27 of the specification as discussed above.

Therefore, the rejection of Claims 1, 3 and 4 under 35 U.S.C. § 102(b) over Murayama (JP 06-210633) is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

In addition, the rejection of Claims 2 and 6 under 35 U.S.C. § 103(a) over Mouri (U.S. 6,113,413) in view of Potter (JP 10-287765) is respectfully traversed.

Potter fails to cure the defects of Mouri as he does not disclose or suggest removal of decomposed products **together with a degasification carrier** from the cross-linked rubbers as claimed.

Decomposed products derived from a resin-crosslinked agent remained when reclaiming resin-crosslinked butyl rubber. Such decomposed products harm the reaction of decross-linking itself or depress storage stability. Therefore, an operation which removes decomposed products is required. The present invention relates to such method, which is not disclosed by Mouri and Potter alone or in combination.

The rejection of Claims 2 and 6 under 35 U.S.C. § 103(a) over Mouri (U.S. 6,113,413) in view of Potter (JP 10-287765) is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 2, 5-7 under 35 U.S.C. § 103(a) as being unpatentable over Murayama (JP 06-210633) in view of Potter (JP 10-287765), is respectfully traversed.

Murayama (JP 06-210633) and Potter (JP 10-287765) do not disclose or suggest removal of decomposed products **together with a degasification carrier** from the cross-linked rubbers as claimed. Even a combination of Murayama (JP 06-210633) and Potter (JP 10-287765) does not result in the present invention.

The rejection of Claims 2, 5-7 under 35 U.S.C. § 103(a) as being unpatentable over Murayama (JP 06-210633) in view of Potter (JP 10-287765) is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

In addition, **new Claim 18** was added which relates to a method of reclaiming crosslinked rubber, comprising:

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introducing water as a degasification carrier and removing, together with the degasification carrier, decomposed products in crosslinked rubber by applying shear stress thereto, during 1) a reclamation step of reclaiming crosslinked rubber and/or 2) a subsequent step after the reclamation step.

None of the cited references use water as a degasification carrier. In addition, the superior results when using water are shown in Table 2 at page 23 of the specification. Thus, Claim 18 should not be rejected over the cited references.

The objection to Claim 7 is obviated by the amendment of this claim.

As requested by the Examiner, Applicants have included the continuity information referring to the PCT application at page 1 of the specification.

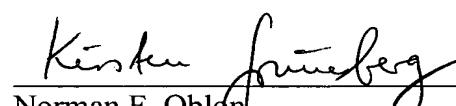
This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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